

STAFFORD COUNTY SCHOOL BOARD

Agenda Consideration

TOPIC: 2005 ES (Leeland)
Construction Schedule
Critical Path

ITEM NO.: 10E

PREPARED BY: Scott Horan, Executive
Director Planning &
Construction

MEETING: June 15, 2004
ACTION DATE: For Information Only

Andre' A. Nougaret,
Assistant Superintendent
for Support Services

ACTION REQUESTED BY THE SUPERINTENDENT: That the School Board be informed of the ES2005 construction schedule critical path.

KEY POINTS:

1. Stafford County's Public-Private Education & Infrastructure Act (PPEA) I Evaluation Committee comprised of members from the School Board and Board of Supervisors met on May 24, 2004 to evaluate Haskell/Hess P3 Joint Venture construction bids for ES2005 (Leeland). After reviewing the cost, the Evaluation Committee voted to not proceed to Phase II (Construction) for ES 2005 due to excessive construction cost. Evaluation Committee also recommended that Margaret Brent Elementary School Prototype be site adapted on the Leeland site. School Board approved recommendation.
2. SCPS Planning and Construction Department advised the Evaluation Committee that, in order to open ES2005 utilizing the Margaret Brent Prototype, an extremely aggressive design and construction scheduled would have to be met.
3. On May 27, 2004 SCPS Planning and Construction Department met with Moseley Architects and negotiated an architect/engineering design fee to site adapt the Margaret Brent Elementary School Prototype Design for ES2005 (Leeland). Negotiated fee was \$511,300.00 or 4.0% of estimated construction cost (\$12.8M).
4. Project Critical Path for Design/Bid/Build (traditional) school development under Virginia Public Procurement Act has four general phases as it applies in Stafford County: Design, county review, bid and construction. The design and county review phases overlap due to their interactive relationship. Given a start date of June 1, 2004, two critical path schedules are offered.

Path A:

- | | | |
|------------------------|---------------------|--------------------|
| • Design/County Review | 120 Days (16 weeks) | *ECD Oct. 15, 2004 |
| • Bid/Award | 50 Days (7 weeks) | *ECD Dec. 8, 2004 |
| • Construction | 365 Days (52 weeks) | *ECD Dec. 7, 2005 |

Path B:

- | | | |
|------------------------|---------------------|--------------------|
| • Design/County Review | 60 Days (8 weeks) | *ECD Aug. 15, 2004 |
| • Bid/Award | 36 Days (5 weeks) | *ECD Oct. 1, 2004 |
| • Construction | 305 Days (44 weeks) | *ECD Aug. 1, 2005 |

*(*ECD = Estimated date of completion)*

Path B decreases the time allowed for all phase of the project and anticipates an accelerated construction schedule.

5. Our architects advise that should we accelerate the construction schedule, we can anticipate increased construction costs (see attached letter).

SCHOOL BOARD GOAL:

Goal 5 – Provide facilities that promote student learning and community support.

Goal 7 – Provide school environments where teachers are safe to teach and students are safe to learn.

FUNDING SOURCE: VPSA

AUTHORIZATION REFERENCE: N/A

May 10, 2004

RE: Elementary School at Leeland
Stafford County, VA

SUBJECT: Accelerated Construction Schedule

Mr. Scott Horan
Director of Planning & Construction
Stafford County Public Schools
31 Stafford Avenue
Stafford, VA 22554

Dear Mr. Horan:

We offer the following comments regarding those who wish to open the Elementary School at the Leeland site in August 2005. Although time pressures are inherent in most construction projects, a shortened schedule however, is problematic.

Award a construction contract before the site approvals are obtained, delaying the start, and be forced to embark on an aggressive building program resulting in acceleration costs, as we have experienced on several recent projects. We have seen overtime and acceleration premiums anywhere from five to twelve percent of the construction bid. Add another four percent due to potential bad weather delay claims and we have experienced as much as 16% in acceleration costs to meet School Clients opening dates.

Hold the construction bid for a late start and one must expect to pay increased cost within the base bids offered by Contractors and their subs. We are frequently told by Contractors to expect a 5 to 10% cost premium in construction bids due to shorter than reasonable schedules. Projects with unrealistic or unattainable schedules will not draw responsive and responsible Contractors to bid on the project work, as their risk to maintain their reputation become to great.

This increased cost, however, is one of diminishing returns. Every week the schedule is shortened, the more expensive the work becomes than the previous week. At some point, you pay a lot more money and the facility still cannot be delivered on time. Scheduling and coordination of project activities to guarantee work performance are significant aspects of the Contractor. Construction schedules, means and methods forced out of sequence with traditional project delivery methods will only lead to extended overhead, labor inefficiencies and overtime costs - eventually becoming unrealistic to the schedule's criteria path. When meeting an extremely tight schedule becomes the overriding factor of getting a project completed, we experience, time and time again, that quality and detail suffer in the end product. Forcing early construction decisions out of sequence often result in the Contractor not fully realizing the downstream consequences of those decisions. With added uncontrollable factors, such as bad weather, the completion eventually becomes unattainable.

Scott Horan
Leeland ES Construction Schedule
Page 2
June 2, 2004

Moseley Architects is not without concern that a complete elementary school and related infrastructure can be achieved by a construction company, ready for occupancy, for the start of the 2005-06 school year, should a construction notice to proceed not be given by November of this year.

We would encourage you to make every effort to shorten and/or streamline the time frame to the anticipated bid period for this project work. We know any time advanced now in the process will recognize benefits in the projected building program before us, if indeed this elementary school is to be open for students in 2005.

Sincerely,

Ronald M. Hotinger, AIA
Vice President